#### DOCUMENT RESUME

ED 407 547 CE 073 974

AUTHOR Mullis, Ronald L.; And Others

TITLE Stability of Vocational Interests among High School

Students.

PUB DATE 96

NOTE 13p.; Paper presented at the Annual Meeting of the National

Council on Family Relations (58th, Kansas City, MO, November

7-10, 1996).

PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS \*Attitude Change; \*Career Awareness; Career Choice; Career

Development; \*High School Students; High Schools; Interest Inventories; \*Occupational Aspiration; Occupational Tests; \*Student Attitudes; Test Reliability; Vocational Interests

IDENTIFIERS \*Strong Campbell Interest Inventory

#### ABSTRACT

A study examined the stability of career interests of adolescents using the Strong-Campbell Interest Inventory (SCII). Participants were 271 freshmen from a rural Midwestern state who took the SCII two times, 3 years apart. Based on this sample, comparisons were made on occupational themes and basic interests of the SCII. Results revealed that these adolescents were relatively stable in their inventoried career interests in high school, supporting previous research. Significant differences in mean scores on the SCII were found for time period, gender, and parent occupation. The study supports the usefulness of the SCII measure with high school students. It also suggests that variables of age, gender, and parent socioeconomic status must be considered when interpreting the stability of occupational interests of students. The study shows the importance of not only assisting young adolescents with career exploration but also of involving family members in discussions of their career interests and options, especially for families in rural areas where exposure to careers may be more limited. Further research should investigate whether the examination of a broader set of social and contextual variables may give greater insight as to how and when adolescents clarify and eventually commit to their vocational choices. (Contains 18 references.) (KC)

Reproductions supplied by EDRS are the best that can be made

\* from the original document.

\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*



# Stability of Vocational Interests Among High School Students Ronald L Mullis, Ann K. Mullis, and Deborah Gerwels Florida State University

U.S. DEPARTMENT OF EDUCATION Office of Educational Research and Improvement EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

 Minor changes have been made to improve reproduction quality.

 Points of view or opinions stated in this document do not necessarily represent official OERI position or policy. PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Running head: Vocational Interests

\*Direct all inquires to the first author c/o Department of Family and Child Sciences, College of Human Sciences, 216 WJB, Florida State University, Tallahassee, Florida 32306-2033 (e-mail: rmullis@garnet.acns.fsu.edu



### **Abstract**

The purpose of this study was to examine stability of career interests of adolescents using the Strong-Campbell Interest Inventory (SCII). High school students from a rural Midwestern state participated in the study over a three year period. Two-hundred-seventy-one freshmen took the SCII two times, three years apart. Based on this sample, comparisons were made on Occupational Themes and Basic Interests of the SCII. Results revealed that these adolescents were relatively stable in their inventoried career interests within high school. During this period, significant differences in mean scores on the SCII were found for time period, gender, and parent occupation. These findings are discussed in relation to previous research and to Holland's theory. Implications of these findings are also addressed.



## Stability of Vocational Interests Among High School Students

Holland's (1973, 1985) theory of career choice has guided much of the research on career development for several decades. Holland theorized that career choices represent an extension of one's personality and that the adequacy of occupational choices is largely a function of personal factors (e.g., personality traits, self knowledge, occupational knowledge) and environmental factors (e.g., family, school). Career choices are made as individuals seek the types of environment that matches, or is congruent with, their personality type. Holland's theory includes three related constructs-- congruence, differentiation and consistency-- to explain the interaction of types within an individual, and between an individual and her or his environment. The construct of consistency or stability in expression of vocational interest themes and basic interests as measured by the Strong-Campbell Interest Inventory (Hansen & Campbell, 1985) was the primary focus of this study.

The Strong-Campbell Interest Inventory (SCII) has had a reputation for its capacity to identify career interests for almost seventy years. Lunneborg (1977) provided evidence of concurrent and predictive validity of the SCII and its capacity to predict occupational membership in the present and in the future. Using Holland's (1973, 1985) career typology, the SCII utilizes this theoretical schema to predict the occupational interests of respondents. Naylor, Care and Mount (1986) reported good concurrent validity between General Occupational Themes of the SCII and Holland's Occupational Themes.

The examination of stability and consistency of career interests continues to be of interest to researchers and practitioners alike (Campbell, 1966; Hansen, 1984; Hansen & Stocco, 1980; Lunneborg, 1977; Prawat, Jones, & Hampton, 1979; Swanson & Hansen, 1988). Of particular interest is the stability of career interests among high school students who experience a variety of career options as part of their education and continuing maturation. Hansen (1984) observed that studies of career interests have sometimes been confused with studies of test-retest reliability of interest inventories. This occurs because stability of interests are obtained when retesting of subjects extends beyond six months, usually years later. Hansen and Stocco (1980) found the SCII to be a useful measure of stability when testing adolescents and young adults at two time periods, three years apart. For the high school sample, stability coefficients were reported by Hanson and Stocco as -.21 to .92 for for basic interest scales and -.31 to .96 for occupational themes. The young adult sample yielded coefficients of -.28 to .96 for basic interests and .17 to .97 for occupational themes. Similarly, Swanson and Hansen (1988) found that college students were highly stable in their career interests over 12 years and that these interests were significantly related to self ratings of stability.

Despite some evidence from past studies on stability of career interests of adolescents and young adults, there remains a need to substantiate these earlier findings and further validate Holland's theory and measurement of career interests. Aside from predicting future career choices, understanding more about career preferences of younger adolescents can assist educators and counselors in designing



#### Vocational Interests

Λ

programs and instructional strategies that better meet the needs of this age group. For example, knowing developmental patterns of career preferences of male and female adolescents can help professionals expose youth to a broader range of career options. This continues to be an important issue because of inconsistent evidence with regard to the stability of sex differences in vocational interests. Diamond (1975) argued that because more people seem to see traditional sex roles as arbitrary, sex differences in career interests may be diminishing in our society. In contrast, Hansen (1984) concluded that despite heightened consciousness, sex differences in vocational differences have remained stable in recent years.

In addition to the relevance of gender in emerging career preferences, Holland suggested that families, their work patterns and social position, have a profound impact on their children's career interests. Holland (1962) reported that fathers occupation was significantly related to their son's career interests. Subsequent findings by others (e.g., Bratcher, 1982; Mortimer, 1976) have supported relationships between social class and social influence and career interests.

The magnitude and stability of influence of individual and sociocultural factors on adolescent career interests continues to be unclear in the literature. Consequently, the purpose of this study was to examine the stability of career interests of high school students, at two points in time. In keeping with Holland's theory, that both personal and environmental factors influence one's career interests over time, the relationships between career interests and age, gender and parent socio-economic status also were examined.

#### Method

#### **Participants**

Participants for this study included 271 freshman (48% males and 52% females) high school students who had been a part of a larger pool of high school participants randomly selected from schools in a midwestern state. This subsample of students was drawn from a larger cross-sectional study of over 1350 high school students. The freshman were those students who participated in the study at two points in time, three years apart. The freshman sample represented 71% of the original sample of freshman (n= 382). During initial testing, the freshman group ranged in age from 14 to 15 years years. Participants were predominantly Caucasian from two-parent families (88%), averaging 4.5 persons per family. Adolescents reported that their families had resided in their homes on an average of nine years. Parental occupations were categorized into three major categories--professional, unskilled, and skilled--based on Hollingshead's Four Factor Index of Social Position (Hollingshead, 1975). All mothers and fathers had completed high school and forty-eight percent had attended or completed college.

To determine if scores from those students who were used in the longitudinal sample of this study were similar to those who were not included, t-tests comparing mean scores between groups were conducted. No significant differences were found between groups across scales suggesting that those students who participated in the longitudinal groups were essentially the same as those who had not participated.



### Measures

Participants were administered the Strong-Campbell Interest Inventory (Hansen & Campbell, 1985). The SCII includes identical measures of Holland's RIASEC Themes and 23 Basic Interest Scales thought to reflect components of the former, administrative indices, and two special scales. RIASEC is an acronym for Holland's hexagonal system of six vocational-interest themes: Realistic (R: interests in working with things and gadgets, working in the outdoors, need for structure); Investigative (I: scientific interests especially mathematics and the physical sciences, independent work); Artistic (A: interests in creative expression in writing and the arts, need for little structure); Social (S: people interests drawn toward the helping professions); Enterprising (E: preferring leadership roles aimed at achieving economic objectives); and Conventional (C: preferring well structured environments and chains of command, such as those found in office practices, tend to be followers rather than leaders).

The 23 Basic Interest Scales (preceded by the letter of their most closely associated RIASEC theme) follow: R (agriculture, nature, adventure, military, and mechanical activities, I (science, mathematics, medical science, and medical service), A (music/dramatics, art, and writing), S (teaching, social services, athletics domestic arts, and religion), E (public speaking, law/politics, merchandising, sales, and business management, and C (office practices).

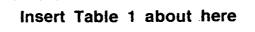
In addition to the above measure, demographic information (e.g., parents' occupation and education, family composition) was collected from participants.

#### Procedure

Measures were distributed to all participating adolescents in randomly selected high schools in the state during the spring semester. Trained personnel in each school administered the SCII and demographic questions according to instructions provided, and then returned the completed measures to the investigators. During the first year (Time 1) the measures were given to freshman level high school students. Three years later, the measures were administered again to the same group of students (Time 2).

#### Results

Test-retest correlation coefficients are presented in Table 1. The range of correlation coefficients for high school students were .48 to .70 (Themes) and .50 to .77 (Basic Interests). Correlations were highest for the Realistic, Artistic and Social Themes and lowest for the Enterprising, Investigative and Conventional Themes. Basic Interest scales of religious activities, public speaking, law and politics, business management and office practices were least stable for this sample. Generally, the test-retest coefficients were good for this sample of high school students.





#### Vocational interests

ŝ

## Analysis of time and gender differences

The means and standard deviations for selected scales of the SCII by time and gender are presented in Table 2. Significant time differences (p<.01) for the high school group were found for all Themes and Basic Interests with the exception of the Realistic Theme and corresponding Basic Interests of agriculture, adventure, military activities, and mechanical.

#### Insert Table 2 about here

The most dramatic gender differences were found for the Realistic, Social and Conventional Themes. Males had higher mean scores for the Realistic Theme whereas females had higher scores for the Social and Conventional Themes. Significant gender differences were found to be stable for the participants across Realistic, Artistic, Social, and Conventional Themes. Similar stability of gender differences were found for 17 of 23 Basic Interest scales. Apparently, with increasing age, career interests of individuals are less influenced by gender and more influenced by personal preferences.

### Analysis of parent occupation

Data were compared in relation to parent occupation for Time 1 and Time 2. Levels of parent occupation were based on the Hollingshead Four Factor Index of Social Position (Hollingshead, 1975) of occupations and were reduced for analysis to three categories of professional, skilled and unskilled occupations. Mean scores on the SCII were analyzed according to this classification by time (See table 3).

#### Insert Table 3 about here

Significant differences were found for parent occupation across scales. Stable parent occupation differences were found for Investigative, Artistic, Social, and Conventional Occupational Themes. Stable differences in Basic Interests were found for agriculture, math, music, art, writing, teaching, public speaking, merchandising, and business management.

Participants from professional or skilled families tended to show greater interests in all Occupational Themes except the Realistic Theme. Participants from unskilled families showed higher Basic Interests in agriculture, nature, adventure, military activities, and mechanical.

#### Discussion

The results of this study support the stability of the Occupational Theme scores and the subscales of the Strong-Campbell Interest Inventory (SCII) found in previous research (Campbell, 1966; Hansen, 1984; Hansen & Stocco, 1980). As with previous research (e.g., Hansen & Stocco, 1980), the present study revealed that scores on the Occupational Themes and Basic Interests are relatively consistent for high school students. In addition, the high median correlation coefficients indicate that participants



#### **Vocational Interests**

7

were generally consistent in their career interests over a three year period. We do not know from these data whether this consistency would be evident for longer periods and whether individual differences would also be stable.

According to Holland (1973; 1985), the sociocultural context is of critical importance in understanding career development and the results of the present study are consistent with this perspective. In addition to age, variables of gender and parent occupation were found to relate to career interests of adolescent participants.

Gender differences in career interests of adolescents or the lack of them, seemed to remain stable over a three year period which corresponds to earlier findings (Broday, 1990a,b; Hansen, 1984). Examination of these data indicate that females scored significantly higher than males on the Social, Artistic, and Conventional Themes. Although there may be several reasons for these findings, it seems that in our culture differential socialization provides an important and useful explanation. In western culture, females traditionally have been reinforced for more social, artistic and conventional activities and behaviors. This same explanation may also apply to the males in this study who scored higher on the Realistic Occupational Theme. The socialization process for male adolescents often encourages them to be more introverted and to identify with adult males, certainly more represented in the basic occupations of the Realistic Theme (e.g., agricultural, military).

Parent occupation also seemed to play an influential role in the inventoried occupational interests of students. Again, this finding is consistent with Holland's theory and associated research (Hansen, 1984; Holland, 1962). When examining the data, several interesting differences emerged. For example, students with parents in unskilled occupations scored higher on the Realistic Theme, whereas students with parents in professional and skilled occupations scored higher on the Artistic, Social, and Conventional Themes. With age, participants from professional families expressed that they liked more occupations than participants with unskilled parents. Again, it seems that participants with professional and skilled parents are more likely than participants with unskilled parents to be encouraged to remain open and explore their occupational interests. This finding certainly magnifies the importance of family and community environments in explaining the emergence of career interests of high school students. The rural nature of this sample also suggests that adolescents who are exposed to fewer potential occupational opportunities may be influenced more by environmental factors including family socio-economic status and existing community opportunities, and possible experiences.

# **Implications**

In sum, the findings of this study support the usefulness of the SCII measure with high school students. It suggests further that certain variables like age, gender and parent socio-economic status must be considered when interpreting the stability of occupational interests of students. That gender differences in career interests are present should be a reminder to counselors that adolescents need impetus to explore beyond traditional gender typed occupations. Most guidance counselors are well aware of the importance of normative developmental changes during



#### Vocational Interests

R

adolescence. However, the findings of the present study suggest that there are more variables to consider when evaluating an adolescent's career interests. Professionals working with adolescents can interpret career interests from several contexts considering not only the individual characteristics but sociocultural considerations as well when interpreting results and formulating recommendations for career exploration.

This study suggests the importance of not only assisting young adolescents with career exploration but involving parents and other family members in discussions of their career interests and options. With the intervention of a teacher or guidance counselor, the adolescent can explore options in addition to those he/she may have been exposed to in the home. Parents can be made aware of the influence they have concerning the career interests of their children. In addition, professionals and parents can consult together in developing plans to orient the student to a variety of career options. This seems especially important for those families who reside in rural areas because exposure to and experience with a wide variety of careers may be more limited. The findings also suggest that school-age children and preadolescents need to be encouraged to examine different options beyond their current range of social experience. As the SCII is found to be stable as early as ninth grade, students need to be encouraged to explore outside of the home, even before high school.

It has been suggested here that, although career interests of adolescents—are becoming more stable, we need to remind ourselves that children's and adolescent's self knowledge and occupational awareness continues to be strongly influenced by sociocultural experiences. Future research should investigate whether the examination of a broader set of social and contextual variables may give us greater insight as to how and when adolescents clarify and eventually commit to their vocational choices.

#### References

Bracher, W.E. (1982). The influence of the family on the career selection: A family systems perspective. <u>Personnel and Guidance Journal</u>, October, 87-91.

Broday, S. F. (1990). The relationship between response style on the Strong-Campbell Interest Inventory and occupational scales (for women). <u>Psychological Reports, 66,</u> 94.

Broday, S. F. (1990). Relationship between response style on the Strong-Campbell Interest Inventory and occupational scales (for men). <u>Psychological Reports, 66,</u> 374.

Campbell, D. P. (1966). Stability of interests within an occupation over thirty years. <u>Journal of Applied Psychology</u>, <u>50</u>, 51-56.

Diamond, E.E. (Ed.) (1975). <u>Issues of sex bias and sex fairness in career interest inventories</u>. Washington, DC: National Institute of Education.

Hansen, J. C. (1984). The measurement of vocational interests: Issues and future directions. In Brown, S. D. & Lent, R. W. (Eds). <u>Handbook of Counseling</u>



Psychology. John Wiley & Sons, Inc.: New York, pp. 99-136.

Hansen, J. C., Campbell, D. P. (1985). <u>Manual for the SVIB-SCII.</u> (4th ed.) Palo Alto. CA: Consulting Psychology Press.

Hansen, J. C., & Stocco, J. L. (1980). Stability of vocational interests of adolescents and young adults. <u>Measurement and Evaluation in Guidance</u>, <u>13</u>, 173-178.

Holland, J. L. (1962). Some explorations of a theory of vocational choice I. One-and two-year longitudinal studies. <u>Psychological Monographs</u>, 76, No.26 (Whole No.545).

Holland, J. L. (1973; 1985). <u>Making vocational choices: A theory of careers.</u> Englewood Cliffs, NJ: Prentice-Hall.

Hollingshead, A. B. (1975). <u>Four-factor index of social position.</u> New Haven, CT:Author.

Lubinski, D., Benbor, C. P., & Ryan, J. (1995). Stability of vocational interest among intellectually gifted from adolescence to adulthood: A 15-year longitudinal study. Journal of Applied Psychology. 80 (1). 196-200.

Lunneborg, P. W. (1977). Construct validity of the Strong-Campbell Interest Inventory among college counseling clients. <u>Journal of Vocational Behavior</u>, 10, 187-195.

Mortimer, J.T. (1976). Social class, work and the family: Some implications of the father's occupation for family relationships and sons' career decisions. <u>Journal of Marriage and the Family</u>, May, 241-255.

Naylor, F. D., Care, E., & Mount, T. J. (1986). The identification of Holland categories and occupational classifications by the Vocational Preference Inventory and the Strong-Campbell Interest Inventory. <u>Australian Journal of Psychology, 38 (2)</u>, 161-167.

Prawat, R. S., Jones, H., & Hampton, J. (1979). Longitudinal study of attitude development in pre-, early, and later adolescent samples. <u>Journal of Educational Psychology</u>, 71 (3), 363-369.

Rounds, J. B., & Tracey, T. S. (1993). Prediger's dimensional representation of Holland's RIASEC circumplex. <u>Journal of Applied Psychology</u>, 78, 875-890.

Swanson, J. L., & Hansen, J. (1988). Stability of vocational interests over 4-year, 8-year, and 12-year intervals. <u>Journal of Vocational Behavior</u>, 33, 185-202.



Table 1. Test-retest correlation coefficients for SCII scales.

Scales:		High School Students(n=271)
Theme	s:	
	Realistic	.704
	Investigative	.564
	Artistic	.608
	Social	.646
	Enterprising	.483
	Conventional	.567
Basic	Interests:	
	Agriculture	.707
	Nature	.586
	Adventure	.704
	Milatary Act.	.500
•	Mechanical Act.	.689
	Science	.594
	Math	.608
	Medical Sci.	.580
•	Medical Ser.	.557
	Music/Dramatics	.616
	Art	.585
	Writing	.658
	Teaching	.571
	Social Ser.	.643
	Atheletics	.659
	Domestic Arts	.690
	Religious Act.	.773
	Public Speaking	.728
	Law/Politics	.715
	Merchandising	.548
	Sales	.543
	Business Man.	.579
	Office Prac.	.747



11

Table 2: Means and standard deviations across SCII scales by time and gender.

High School Students (n = 271)

Ocaloni	Time #1	-	Time	
Scales:	м	F	M	F
Themes:				
Realistic	50.94	37.40**	51.65	41.63**
Investigative	(9.24) 42.41	(6.85) 40.05 (8.68)	(9.73) 40.27 (10.88)	(8.37) 37.38** (9.28)
Artistic	(9.834) 35.76 (7.96)	42.25**	38.75	41.84**
Social	35.17 (9.13)	(10.09) 44.72** (9.96)	(10.27) 35.81 (8.75)	(10.80) 40.10** (10.32)
Enterprising	41.85	44.46*	45.96	46.33
Conventional	(9.98) 41.39 (10.08)	(9.09) 47.84** (10.22)	(10.94) 44.77 (10.71)	(10.38) 50.75** (10.75)
Basic Interests:				
Agricultural	51.03 (9.92)	44.25** (8.17)	50.40 (10.43)	44.69** (8.62)
Nature	38.90 (7.85)	40.89* (7.87)	41.59 (8.68)	42.51 (10.03)
Adventure	57.38 (9.49)	47.85** (9.51)	57.85 (9.93)	46.53** (9.82)
Military Act.	<b>54.84</b>	46.84**	51.27 (11.31)	45.51**
Mechanical	(12.03) 52.22 (8.76)	(9.31) 39.81** (6.36)	53.55 (9.07)	(7.42) 39.12** (7.31)
Science	45.23 (9.47)	40.43** (6.93)	46.42 (9.82)	39.16** (7.94)
Math	45.20 (9.15)	46.41 (8.52)	47.23 (9.86)	45.69** (9.61)
Medical Science	40.65 (9.42)	42.64 (10.14)	41.63 (9.56)	40.41 (9.72)
Medical Services	43.46	49.54** (10.46)	45.42 (8.80)	48.26** (11.20)
Music/Drama	(7.34) 36.14 (7.03)	45.33** (9.47)	40.58 (9.36)	45.15" (10.11)
Art	37.98	45.03**	37.66	35.81** (8.75)
Writing	(8.96) 33.29 (6.78)	(9.86) 39.62** (10.05)	(9.66) 37.67 (9.67)	35.90** (8.06)
Teaching	36.83 (9.39)	45.66**	40.65	47.02** (10.32)
Social Service	36.85	(9.98) 48.33**	(10.47) 40.11 (8.70)	50.10**
Athletics	(7.13) 53.22 (9.83)	(10.74) 51.07*	(8.70) 53.44 (40.77)	(10.62) 48.72**
Domestic Arts	(9.63) 38.66	(8.26) 54.33**	(10.77) 41.75	(8.29) 53.13**
Religious Activities	(7.91) 39.25	(10.86) 43.50**	(8.71) 40.24 (7.57)	(9.45) 44.04**
Public Speaking	(6.89) 37.63	(8.81) 39.57*	(7.87) 40.58	(9.23) 40.46
Law/Pol.	(8.07) 40.61 (8.77)	(8.60) 40.67	(9.06) 42.22 (9.51)	(9.26) 41.66 (8.78)
Merchandising	(8.77) 39.61 (8.80)	(8.22) 46.31** (8.73)	(9.51) 43.10 (10.22)	(8.78) 48.50** (9.54)
Sales	(8.80) 49.26	(8.73) 50.15	50.92	50.85
Business Mgmt.	(8.39) 39.05	(8.75) 42.42**	(9.87) 42.36	(9.80) 45.88**
Office Practices	(9.53) 44.40 (6.99)	(8.82) 56.54** (10.35)	(10.33) 46.28 (8.92)	(10.20) 59.20** (12.38)

Note: Gender differences: \*p<.05; \*\*p<.01



Table 3: Means and standard deviations for SCII scale by time and parent occupation.

Scales:		Time 1 (n = 271)		₽		Time 2 (n = 271)		ā
Themes:	<u>P</u>	<u>s</u>	<u>us</u>		<u>P</u>	<u>s</u>	<u>us</u>	
Realistic	45.60	44.53	49.06	-	45.23	45.26	50.84	٠
Invest.	(9.37) 40.29 (8.01)	(11.02) 39.01 (10.97)	(10.22) 34.73 (9.78)	٠	(11.18) 41.02 (10.13)	(9.89) 39.74 (10.45)	(10.43) 35.59 (9.57)	٠
Artistic	40.36	38.28	38.94	••	39.00	42.24	35.28	••
Social	(8.77) 41.95 (10.13)	(9.77) 39.2 (9.70)	(10.02) 34.66 (10.62)	•	(9.69) 43.67 (11.29)	(11.22) 43.03 (10.87)	(8.30) 37.21 (9.01)	••
Enter.	44.92	42.54	40.15	-	47.14	48.70	42.59	-
Conv.	(10.11) 46.56 (10.17)	(10.24) 42.90 (10.32)	(8.82) 39.24 (10.12)	••	(9.93) 50.55 (11.74)	(10.98) 47.31 (10.19)	(10.04) 41.44 (10.22)	••
Basic Inte	rests:							
Ag.	49.32	47.79	53.54	••	47.27	46.71	54.91	* *
Nat.	(8.16) 38.33	(8.62) 39.19	(8.89) 39.93	-	(8.73) 39.90	(9.94) 40.94	(11.68) 42.00	_
Adv.	(8.66) 53.07	(8.21) 54.51	(7.82) 54.49	_	(8.76) 53.08	(9.69) 53.21	(8.77) 53.60	_
MilAc.	(10.57)	(10.04) 50.16	(11.88) 52.00		(11.32) 48.42	(11.75) 48.76	(10.40) 50.50	
	49.78 (11.56)	(11.46)	(12.44)	_	(9.92)	(9.84)	(12.75)	_
Mech.	44.49 (9.26)	47.24 (10.72)	49.17 (10.52)	-	46.98 (11.82)	46.82 (10.34)	51.50 (11.03)	-
Sci.	44.31	43.81	42.86	-	42.87	43.93	42.40	-
Math	(7.83) 47.88	(9.82) 46.28	(8.62) 39.70	••	(9.31) 49.11	(9.63) 46.35	(8.90) 42.68	••
MedSci.	(9. <del>6</del> 4) 44.48	(8.40) 40.49	(8.64) 37.46		(10.01) 42.60	(9.54) 40.92	(8.58) 39.72	_
	(9.47)	(10.80)	(7.76)		(10.31)	(9.27)	(9.20)	
MedSer	48.41 (9.05)	47.03 (9.20)	44.53 (7.42)	-	47.10 (10.62)	46.89 (9.69)	45.53 (10.35)	_
Music	<b>39.66</b>	40.73	35.14	٠	41.73	44.29	38.25	••
Art	(9.19) 40.10	(9.43) 41.17	(10.14) 37.42	•	(9.46) 41.66	(10.32) 45.21	(8.53) 38.12	••
Writing	(9.46) 37.78	(9.77) 36.66	(10.00) 32.42		(10.18) 36.84	· (11.34) 39.30	(8.74) 33.81	
•	(8.61)	(8.89)	(9.67)		(8.32)	(10.80)	(6.72)	
Teach	42.63 (10.05)	40.62 (10.73)	34.73 (10.29)	••	44.75 (10.79)	44.08 (11.22)	34.78 (7.84)	•
SocSer.	43.50	41.25	39.30	-	45.22	45.28	39.72	•
Athlet.	(10.54) 53.30	(10.73) 52.55	(10.23) 49.59	_	(10.60) 53.12	(11.22) 51.07	(7.73) 48.71	_
DomArt	(9.60) 46.50	(8.98) 46.78	(9.49) 41.63	_	(9.39) 46.41	(10.08) 48.01	(10.65) 42.71	
DomArt.	(11.44)	(12.37)	(12.36)	_	(10.79)	(10.31)	(10.98)	
ReiAc.	42.09 (7.64)	40.27 (7.56)	41.10 (8.21)	-	41.73 (8.46)	42.96 (9.06)	37.87 (5.25)	••
PubSpk.	40.5Ó	37.70	34.17	•	39.95	37.84	34.40	•
Law/Pol.	(8.74) 40.87	(8.40) 39.70	(7.76) 37.93	-	(9.29) 42.98	(9.05) 42.35	(6.64) 38.43	_
Merch.	(8.61) 43.43	(8.49) 42.57	(7.77) 38.42		(9.57) 46.68	(9.27) 46.15	(7.17) 40.38	••
	(9.68)	(9.84)	(7.89)		(9.50)	(10.57)	(9.14)	
Sales	50.74 (9.25)	50.01 (9.30)	49.49 (7.32)	-	51.41 (9.89)	51.02 (9.88)	49.59 (9.48)	-
BusM.	41.67 (9.46)	40.63 (9.98)	36.91 (8.08)	•	45.65 (10.32)	44.36 (10.43)	38.68 (8.70)	••
OffPrac.	(9.46) 50.31 (9.77)	(9.98) 49.40 (10.84)	(8.08) 47.91 (10.87)	-	(10.32) 51.41 (13.49)	50.82 (11.35)	46.31 (10.51)	**
	, ,	(10.04)	, ,		, ,	( )	()	

Note: p<05; \*\*p<01

BEST COPY AVAILABLE





Title:

Corporate Source:

I. DOCUMENT IDENTIFICATION:

II. REPRODUCTION RELEASE:

U.S. Department of Education

Office of Educational Research and Improvement (OERI)

Educational Resources Information Center (ERIC)



Publication Date:

# REPRODUCTION RELEASE

(Specific Document)

Stability of Vocational Interests Among High School Students

Mullis, Ann K. Mullis & Deborah Cerwels

paper	copy, and electronic	te as widely as possible timely and significant ornal of the ERIC system, <i>Resources in Educa</i> c/optical media, and sold through the ERIC Do h document, and, if reproduction release is gra	ation (RIE), are usually made available to us	ers in microfiche, reproduced
11		ed to reproduce and disseminate the identified		
	<b>5</b> 7	The sample sticker shown below will be affixed to all Level 1 documents	The sample sticker shown below will be affixed to all Level 2 documents	
Check here For Level 1 Release: Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical) and paper copy.		PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY	PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN OTHER THAN PAPER COPY HAS BEEN GRANTED BY	Check here For Level 2 Release: Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical), but not in paper copy.
		Level 1	Level 2	
·	Doc to r	cuments will be processed as indicated provide eproduce is granted, but neither box is checke	ed reproduction quality permits. If permission and, documents will be processed at <b>Level 1</b> .	1
Sign	ERIC emplo	nnt to the Educational Resources Information Ce nt as indicated above. Reproduction from the l yees and its system contractors requires perm by libraries and other service agencies to satis	ENIO microfiche or electronic/optical media b ission from the copyright holder. Exception i fy information needs of educators in response	y persons other than
here→ please	On all	f KMulles	Printed Name/Position/Title:  Ronald L. Mull Telephone: FAX	is Ph.O.
	216 L Dept. o Florida	WIB of Family & Child Scu State University	904-644-6021 god CMCO E-Mail Address: Date rmull50 garnet, acrs fsuredu	4-644-0700
ERIC	I a layuu	Nec / - 2 32366 Incil on Family Relations' 58 POLITICAL CONTEXT" (Kansas (	Sth Annual Conference "FAMI	<u></u>

# III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distribu	itor:					•.	
			s i ka i na sa	gginaji -	in the second	·	
Address:	••••••	***************************************	••••••				
		•	·				
Price:	••••••	•••••••••••••••••••••••••••••••••••••••	•••••••••••••••••••••••••••••••••••••••	•••••••••••••••••••••••••••••••••••••••	······································	······································	••••••
				· · · · · · · · · · · · · · · · · · ·			
IV. REFER	RAL O	F ERIC TO	COPYRIGHT	/REPRODU	JCTION RIGH	ITS HOLDI	ER:
If the right to gran	t reproduct	ion release is held l	by someone other tha	an the addressee	, please provide the a	appropriate name	and address
Name:					<del>-</del>		

# V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

KAREN E. SMITH

ACQUISITIONS COORDINATOR

ERIC/EECE

CHILDREN'S RESEARCH CENTER

51 GERTY DRIVE

CHAMPAIGN, ILLINOIS 61820-7469

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
1100 West Street, 2d Floor
Laurel, Maryland 20707-3598

Telephone: 301-497-4080
Toll Free: 800-799-3742
FAX: 301-953-0263
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com



Address: